

ATTACHMENT II-1-1
ANALYTICAL PROCEDURES

PAINT FILTER LIQUIDS TEST
METHOD EC-0725

1.0 SCOPE AND APPLICATION

- 1.1 Method EC-0725 is used to determine the presence of free liquids in a sample of incoming waste. This method is an adaptation of the method for the Paint Filter Liquids Test in SW-846 Method 9095. The procedure of this method is equivalent to SW-846 Method 9095.

2.0 SUMMARY OF METHOD

- 2.1 A measured amount of a sample of waste is placed in a paint filter. If any liquid portion of the sample passes through and drops from the filter within the 5-minute test period, the material is considered to contain free liquids. (In some instances solid-phase soil, dirt, or dust particles may fall from the paint filter. This occurrence is expected with fine solids. No conclusion of free liquids will be made based on an observation of this occurrence.)

3.0 INTERFERENCES

- 3.1 Filter media were observed to separate from the filter cone on exposure to alkaline materials. This development causes no problem if the sample is not disturbed.

4.0 APPARATUS AND MATERIALS

- 4.1 Conical paint filter: Mesh number 60
- 4.2 Glass funnel: If the paint filter, with the waste, cannot sustain its weight on the ring stand, then a fluted glass funnel or a glass funnel with a mouth large enough to allow at least 1 in. of the filter mesh to protrude should be used to support the filter. The funnel is to be fluted or have a large open mouth in order to support the paint filter yet not interfere with the movement, to the graduated cylinder, of the liquid that passes through the filter mesh.
- 4.3 Ring stand and ring, or tripod.

4.4 Graduated Cylinder or Beaker.

4.5 Timing device (clock, watch, or timer)

5.0 REAGENTS

5.1 None

6.0 SAMPLE COLLECTION, PRESERVATION, AND HANDLING

6.1 The sample will be obtained by following Attachment II-1, *Waste Analysis Plan*.

6.2 A 100-mL or 100-g representative sample is required for the test.

7.0 PROCEDURE

7.1 Place the ring on the ring stand, the paint filter on the ring, and the graduated cylinder or beaker beneath the narrow end of the cone filter so that any liquid drops that form may be collected in the graduated cylinder or beaker beneath the filter.

7.2 Place a 100-g or 100-mL sample in the filter. (A funnel may be used to support the filter.)

7.3 Allow sample to drain for 5 minutes into the graduated cylinder or beaker.

7.4 If any liquid from the sample collects in the graduated cylinder or beaker in the 5-minute period, then the material is deemed to contain free liquids.

8.0 DATA RECORDING AND MANIPULATION

8.1 If there are no liquids collected in the graduated cylinder, then record A "Pass" in the laboratory analysis notebook.

8.2 If there are liquids present in the graduated cylinder, then record "Fail".

8.3 Optional: Record observations as to whether there were any solid fines or minutia in the graduated cylinder at the conclusion of the test. (Note: A sample may still pass when there are only solids in the graduated cylinder at the conclusion of the procedure.)

- 8.4 Date and Initial Data. Place initials next to the notations of results in the laboratory analysis notebook. Ensure that the date of analysis appears on the page.

9.0 QUALITY CONTROL

- 9.1 Duplicate samples should be analyzed once each operating day. The results of this analysis must be recorded in the laboratory analysis notebook. (An operating day is a day that the test is run for an incoming shipment of waste.)

10.0 SAFETY

- 10.1 Sampling and laboratory personnel must wear gloves, protective clothing, footwear, and laboratory eye wear with side guards or goggles when sampling and analyzing incoming shipments.

11. SAMPLE DISPOSAL

- 11.1 Samples will be managed and disposed of in accordance with Section VII.8 of Attachment II-1, *Waste Analysis Plan*.

ATTACHMENT II-1-1
ANALYTICAL PROCEDURES

PHOTOIONIZER “SNIFFER” TEST
METHOD EC-0800

1.0 SCOPE AND APPLICATION

- 1.1 Method EC-0800 is used to provide Envirocare with prompt information of the nature of a waste with respect to the waste's composition of volatile organic compounds.
- 1.2 This method will provide results which reflect the quantitative level of volatile organic chemicals present in vapors above the waste.

2.0 SUMMARY OF METHOD

- 2.1 A sample is collected in an air-tight container. When the sample is collected, the sample container must be sealed immediately upon placement of the waste into the container. Similarly, the sample must be analyzed for this method at the earliest opportunity upon arrival in the laboratory.
- 2.2 An opening is made in the sample container, and the sniffer probe is inserted into the container. The sniffer is read and the result is recorded.

3.0 INTERFERENCES

- 3.1 Hazardous as well as non-hazardous constituents may be detected by the photoionizer. However, non-listed volatile organic compounds may contribute to the waste's ignitability.
- 3.2 The sniffer results are somewhat a function of the distance of the probe from the sample and of the state of equilibrium in the container. Care should be taken to provide a situation of equilibrium within the sample container during the analysis.

4.0 APPARATUS AND MATERIALS

- 4.1 HNU or other brand photoionization unit with detector probe or port.
- 4.2 Standard sample of n-hexane or calibration span-gas.

5.0 REAGENTS

None.

6.0 SAMPLE COLLECTION, PRESERVATION, PREPARATION, AND HANDLING

None.

7.0 PROCEDURE

- 7.1 Standardize the photoionizer with n-hexane, calibration span-gas or some other standard chemical before use each day. Follow the manufacturer's operating procedures for standardization.
- 7.2 Take the container of waste and provide a place to insert the sniffer probe into the environment within the container. Insert the probe into the sample container. Use care to create a situation of equilibrium and as steady an analytical readout as possible within the sample container during the analysis.

8.0 DATA RECORDING AND MANIPULATION

- 8.1 Record the value read on the meter and the setting of the multiplier.
Note: values that are less than 10 ppm shall be recorded as <10
- 8.2 Multiply these values together and record the result.
- 8.3 Date and Initial Data. Place initials next to the notations of results in the laboratory analysis notebook. Ensure that the date of analysis appears on the page.

9.0 QUALITY CONTROL

- 9.1 Standardize the meter daily using n-hexane or another standard chemical. Make a notation as to the results of the standardization.
- 9.2 A duplicate will be run once each operating day for a quality control. The results of the duplicate will be recorded in the laboratory analysis notebook as well as the time.
- 9.3 For control of the container, whenever a container is used which is constructed of a material other than glass, a blank reading of the container must be performed

within 12 hours prior to the container's use for sample collection. The results of the blank container analysis must be recorded in the laboratory analysis notebook. Containers which have results above two standard deviations of the mean blank measurement will not be used.

10.0 SAFETY

- 10.1 Sampling and laboratory personnel must wear gloves, protective clothing, footwear, and laboratory eye wear with side guards or goggles when sampling or analyzing incoming shipments.

11. SAMPLE DISPOSAL

- 11.1 Samples will be managed and disposed of in accordance with Section VII.8 of Attachment II-1, *Waste Analysis Plan*.

END OF ATTACHMENT II-1-1